

 $\widehat{\mathbf{c}}$ digestion pattern of positive 50kb lambda an 62-mer labelled probe with a subcloned 6.5 80-mer labelled probe with an subcloned 12kb Bam HI-fragment. 1 kb DNA step ladder (lane2). (B) Hybridization of Ara hil gene (lane3), Lambda DNA/Hind III markers Bam HI-fragment (clones 1-6). Hybridization of clone for Figure 1.

tccttacgcgaaatacggg -91 cagacatggcctgcccggttattattattttttgacacagaccaac -46 tggtaatggtagcgaccggcgctcagctggaattcgcggccgcca 1 atgccaagctcaccatactagtagccctcgcccttttcctcctc MAKLTILVALALFL 46 gctgcccacgcatctgcgaggcagcagtgggaactccaaggagac AAHASARQQWELQGD 91 agaagatgccagaccagctcgagagggcgaacctgaggccctgc RRCQSQLERANLRPC 136 gagcaacatctcatgcagaagatccaacgtgacgaggattcatat Q H L M Q K I Q R D E D S Y 181 gaacgggacccgtacagccctagtcaggatccgtacagccctagt E R D P Y S P S Q D P Y S P S 226 ccatatgatcggagaggcgctggatcctctcagcaccaagagagg P Y D R R G A G S S Q H Q E R 271 tgttgcaatgagctgaacgagtttgagaacaaccaaaggtgcatg CCNELNEFENNQRCM 316 tgcgaggcattgcaacagatcatggagaaccagagcgataggttg CEALQQIMENQSDRL 361 caggggaggcaacaggagcaacagttcaagagggagctcaggaac QGRQQEQQFKRELRN 406 ttgcctcaacagtgcggccttagggcaccacagcgttgcgacttg LPQQCGLRAPQRCDL 451 gacgtcgaaagtggcggcaggcggcgcgcgaattccgccgatactg DVESGGRRPRIPP 496 acgggctccaggagtcgtcgccaccaatccccatatggaaaccgt TGSRSRRHQSPYGNR 541 cgatattcagccatgtgccttcttccgcgtgcagcagatggcgat RYSAMCLLPRAADGD 586 ggctggtttccatcagttgctgttgactgtagcggctgatgttga G W F P S V A V D C S G Stop 631 actggaagtcgccgcgccactggtgtgggccataattcaattcgc 676 gcgtcccgcagcgcagaccgttttcgctcgggaagacgtacgggg 721 tatacatgtctgacaatggcagatcccagcggtcaaaacaggcgg 766 cagtaaggcggtcgggatagttttcttgcggccctaatccgagcc 811 agtttacccgctctgctacctgcgccagctggcagttcaagccaa 856 tccgcgccggatgcggtgtatcgctcgccacttcaacatcaacgg 901 taatcqccatttgaccactaccatcaatccggtaggttttccggc 946 tgataaataaaggttttcccctgatgctgccacgcgtgagcggtc 991 gtaatcagcaccgcatcaacaagtgtattttgccgtgcactgcaa

Figure 2

1036 caacgctggttcgggctg

gacacagaccaactggtaatggtagcgaccggcgctcagctggaattcgcggccgacaatggccaagc
tcaccatactagtagccctcgcccttttcctcctcgctgccacgcatctgcgaggcagcagtgggaactccaaggagacagaa
gatgccagagccagctcgagagggcgaacctgaggccctgcgagcaacatctcatgcagaagatccaacgtgacgaggattc
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ccAAGAGAGGTGTTGCAATGAGCTGAACGAGTTTGAGAACAACCAAAGGTGC
ATGTGCGAGGCATTGCAACAGATCATGGAGAACCAGAGCGATAGGTTGCAG
GGGAGGCAACAGGAGCAACAGTTCAAGAGGGAGCTCAGGAACTTGCCTCAA
CAGTGCGGCCTTAGGGCACCACAGCGTTGCGACTTGGACGTCGAAAGTGGC
GGCAGgcggccgggaattccgccgatactgacgggetccaggagtcgtcgcaccaatccccatatggaaaccgtcgat
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Fig. 4.

atggctaagcttctttgagctttctttttgcttttgctttctagttctgggagctagcagcatctccttcaggcagcagcc ggaggagaatgcgtgccagttccagcgcctcaatgcgcagagacctgacaaccgcattgaatcggagggcggttacattg agacttggaaccccaacaaccaggagttcgaatgcgccggcgtcgccctctctcgcttagtcctccgccgcaacgccctt ttgtcctagcacatatgaagagcctgcacaacaaggacgccgatatcagtcccaaagaccaccaagacgtttgcaagaag aagaccaaagccaacagcaacaagatagtCACCAGAAGGtGCACCGTTTCaATGAGGGTGATC TCATTGCAGTTCCCACCGGTGTTGCTTTctggctgtACAACGACCACGACACTGAT GTTGTTGCTGTTTCTCTTACTGACACCAACAACAACGACAACCAGCTTGATCA GTTCCCCAGGAGATTCAATTTGGCTGGGAACcacgAGCAAGAGTTCTTAAGGTA CCAGCAACAAAGCAGACAAAGCAGACGAAGAAGCTTACCATATAGCCCATA CAGCCCGCAtaGTCgGCCTAGACgAGAAGAGCGTGAATTTcGCCCTCGAGGACA ACATCTTCAGCGGCTTCACGCCGGAGTTCCTGGAACAAGCCTTCCAGGTTGA CGACAGACAGATtGTGCAAAAtCTGTGGGGCGAGAaCGAGAGTGAAGAAGAG GGAGCCATTGTGACggTGAGGGGAGGCCTCAGAATCTTGAGCCCAGATggaacga gaggTGCCGACGAAGAAGAGGAATACGATGAAGATcAATATGAATACcATGAA ¢AGGATgGAAGGCGTGGCAGGGGAAGCAGAGGCGGGGGGAATGGTATTGAA GAGACGATCTGCACCGCAtgtGTTAAAAAGAACATTGGTgGAAACAGATCCCCT CACATCTACgatcCTCAGCGCTGGTTCACTCAAAACTGCCACGATCTCAACCTTC TAATCCTTAGGTGGCTTGGACTTAGTGetgaatatggaaatetetacaggaatgeattgtttgtccctcac tacaacaccaacgcacacagcatcatatatgcattgaggggacgggctcacgtgcaagtggtggacagcaacggcaacagag tgtacgacgaggagcttcaagagggtcacgttcttgtggtgccacagaacttcgccgtggctgggaagtcccagagcgagaac ttogaatacgtggcattcaagacagattcaaggcccagcatagccaactttgccggtgaaaactccttcatagataacctgccgg aggaggtggttgcaaattcatatggcctcccaagggagcaggcaaggcagcttaagaacaacaaccccttcaagttcttcgttcc accttttcagcagtctccgagggctgtggcttaaaaacgaccagtatcttttgcaagcgtgttatccactaacataactttttgccaca aatgaataataataataataagaagaataatgtagttttaatttttagtatgaataagaatacaaaggggcattgatgcctttttgtttaag ateggaatgtaacatatgtgcaatgagcagatatggagaaaaccttttgcgggaaaaacatgaataataaaagaagttatggtctc асдсаааааааааааааааааааааааааааааа

Fig. 5.

tgctagggatccttgtcctggcttcagtttctgcaacgcatgccaagtcatcaccttaccagaagaaaacagagaacccc tgegeecagaggtgeetceagagttgtcaacaggaaccggatgacttgaagcaaaaggcatgcgagtctcgctgcaccaa agctggaccgagggagcgtgaaagagaagaagactggagacaaccaagagaagattggaggcgaccaagtcatcagcagc cacggaaaataaggcccgaaggaagaagaagaacaagagtgggaacaccaggtagccatgtgaggaagaaacatct eggaacaaccetttetaetteegteaaggeggtttageaccegetaegggaaccaaaaeggtaggateegggteetgeag aggtttgaccaaaggtcaaggcagtttcagaatct CCAGAATCACCGTATTGTGCAGATCGAGGCCAzaCCTAACACTCTTGTTCTCCCAAGCACGCTGATGCTGATAACATCCTTGTT ATCCAGCAAGGgcAAGCCACCGTGACCGTAGCAAATGGCAATAACAGAAAGA GCTTTAATCTTGACGAGGCCATGCACTCAGAATCCCATCCGGTTTCATTTCC TACATCTTGAAccgcCATGACAACCAGAACCTCAGAGTAGCTAAAATCTCCATG CCCGTTAACACacceggccagtttgaggatttettcecggcgagcagccgagaccaatcatcctacttgcagggcttc agcaggaatacgttggaggccgccttcaatgcggaattcaatgagatacggagggtgctgttagaagagaatgcaggaggtga gcaagaggagagagggcagaggcgatggagtactcggagtagtgagaacaatgaaggagtgatagtcaaagtgtcaaagga actigagagaaggcgagcccgatctttctaacaactttgggaagttatttgaggtgaagccagacaagaagaacccccagcttca ggacctggacatgatgctcacctgtgtagagatcaaagaaggagctttgatgctcccacacttcaactcaaaggccatggttate gtcgtcgtcaacaaaggaactggaaaccttgaactcgtggctgtaagaaaagagcaacaacagaggggacggcgggaagaa tgttcatcatgccagcagctcatccagtagccatcaacgcttcctccgaactccatctgcttggcttcggtatcaacgctgaaaaca gggtgaacaagttgagaagctcatcaaaaaccagaaggaatctcactttgtgagtgctcgtcctcaatctcaatctccatctccgtc gtctcctgagaaagagtctcctgagaaagaggatcaagaggaggaaaaccaaggaggaagggtccactcctttcaattttgaa ggcttttaactgagaatggaggcaacttgttatgtatcgataataagatcacgcttttgtactctactatccaaaaacttatcaataaat aaaaacgtttgtgcgttgtttctcc

Figure 6: Gene constructs for down-regulating peanut allergens in transgenic peanuts.

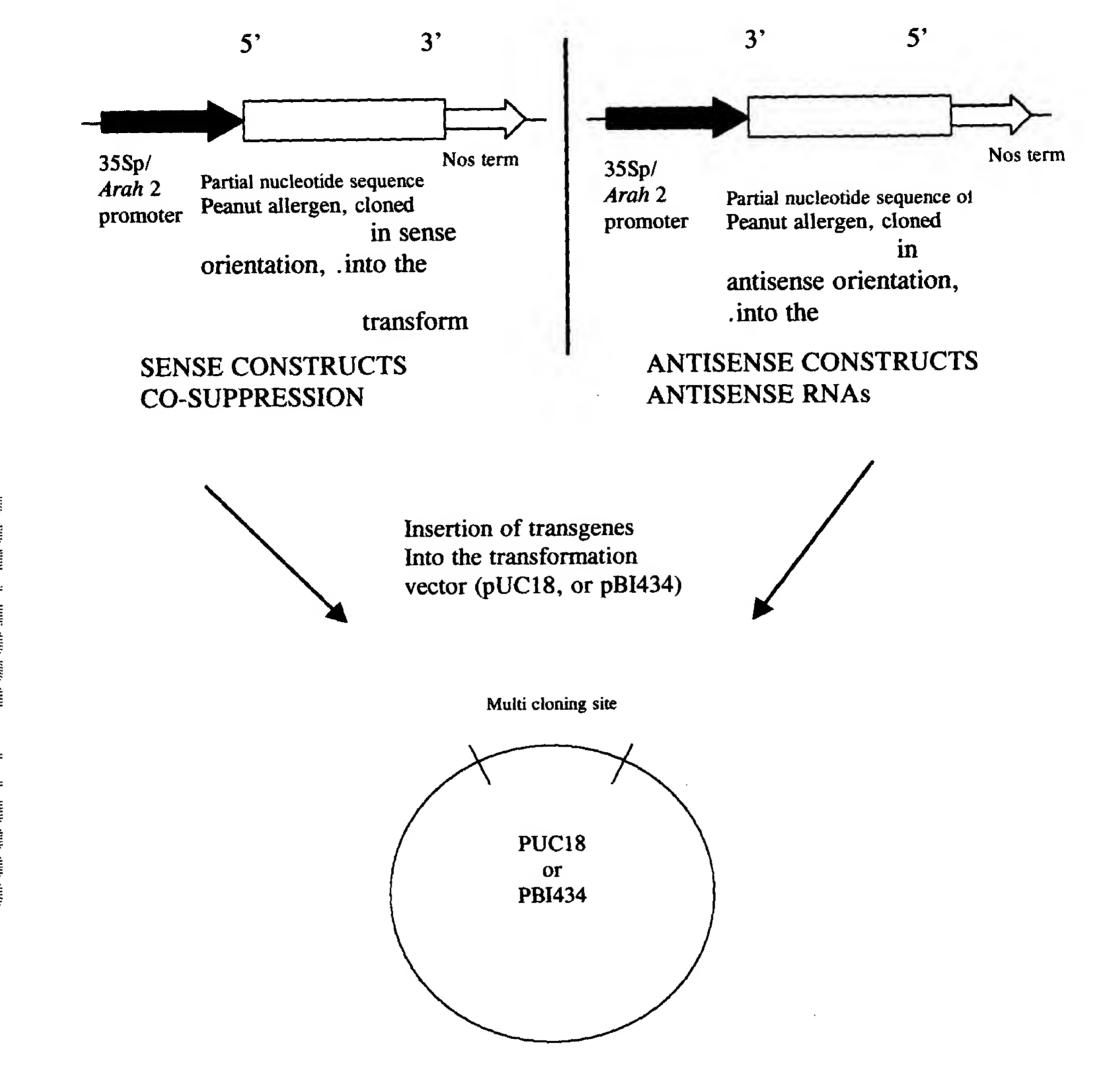


Figure 7.

15i ...

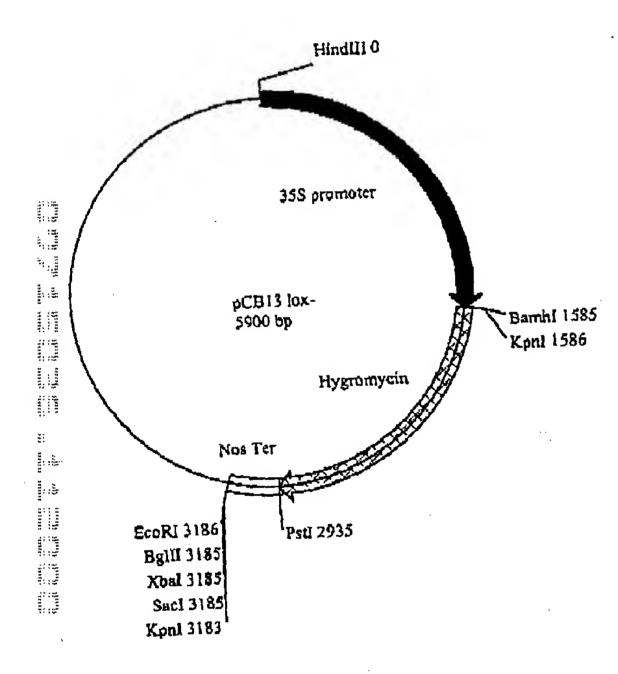
State state

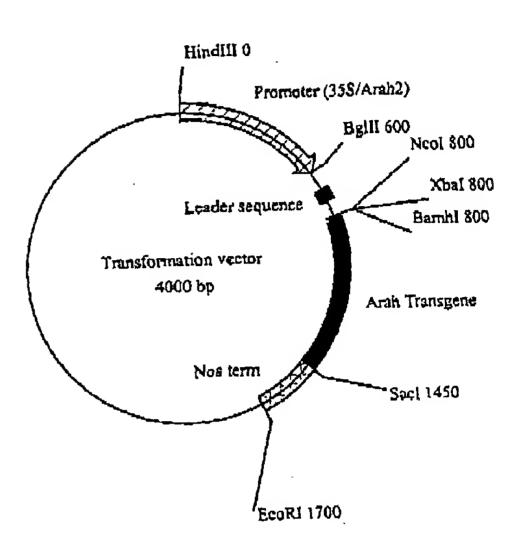
1,1

ğ.,2

::**4**

pCB13 for selection of transgenic plants





Modified pBI434

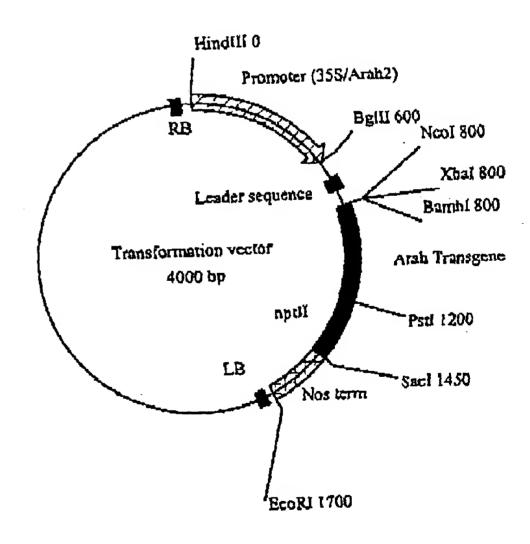


Fig. 9

tccttacgcgaaatacggg

- -91 cagacatggcctgcccggttattattattttttgacacagaccaac
- -46 tggtaatggtagcgaccggcgctcagctggaattcgcggccgcca
 - 1 atgccaagctcaccatactagtagccctcgcccttttcctctc

Fig. 9 shows the nucleotide sequence of the Arah2 promoter upstream of the ATG initiation codon of the genomic Arah2 clone.

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